Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC. 20554

In the Matter of	)	
	)	
Digital Audio Broadcasting Systems and	)	
Their Impact on the Terrestrial Broadcast Service	)	Docket No. 99-325
	)	
	)	
	)	
	)	

To: The Commission

COMMENTS OF THE AMHERST ALLIANCE, NICKOLAUS E. LEGGETT,

DON SCHELLHARDT, JOHNATHAN GRANT and ALAN J. WOOD.

The Amherst Alliance (Amherst) is commenting on rulemaking proposal 99-325, regarding

the In Band On Channel (IBOC) audio broadcasting initiative. Views herein are shared by

the below Amherst cosignatories, a coalition of citizens that promote, operate and/or protect

the privilege of FCC regulated Low Power Radio FM broadcasting (LPFM).

Discussion

Report and Order 99-25 made possible the addition of FM radio stations that operate with

comparatively low transmitting power on the FM radio band (LPFM).

To insure the integrity of the FM band that LPFM stations now occupy, distance and

spacing methods for both class LP-100 (100 watt) and LP-10 (10 watt) stations were

determined by acceptable technical standards adopted by the Commission in an era of

entirely analog FM emissions.

Technically, we believe that LPFM radio, as well as other Part 73 classes, deserve their

analog signal quality preserved while IBOC systems grow throughout the country.

Problem

Feedback from avid FM radio listeners has informed Amherst that certain qualitative

degradation has been experienced where IBOC sideband artifact noise is present while

listeners attempt to receive 2nd, 3rd and 4th adjacent analog FM stations. The degraded

adjacent analog FM stations exist outside of the 70dBu contour of the IBOC station and are

defined as such in the following discussion of adjacent FM analog radio stations.

Wider bandwidth is required for an IBOC hybrid FM signal than for an analog FM signal.

Amherst believes that applying IBOC signals in certain localities, where the loss of

aesthetically intelligible reception of adjacent analog FM radio occurs, would not serve the

public interest.

While Amherst welcomes this advancement of the art, consistent and accurate documented

tests that define acceptable and unacceptable interference to 2nd, 3rd and 4th adjacent

analog FM stations have not yet been performed.

Rather than allow IBOC to adversely effect the quality of analog FM radio in certain

geographical areas, where analog FM may not be received reliably from beyond their

70dBu contour because of arbitrary IBOC infrastructure placement, Amherst proposes a

technical and regulatory compromise.

Compromise Solution Example

Even though conclusive testing has not yet been performed on IBOC and analog FM station coexistence, Amherst members are listening to consumers who report receiving sharp "buzz saw" noise instead of what was a not too distant intelligible adjacent analog FM signal before the IBOC system was added into a particular radio station.

CFR47 rule Part 73.317 defines bandwidth criteria for analog FM radio. This specification, and emissions of thousands of operating U.S. FM stations that use it, have not been designed to tolerate sharp sounding digital modulation imposed on the analog specification bandwidth borders. Aesthetic degradation, or loss of full quieting of an analog signal, is caused by wider than analog bandwidth IBOC sideband emissions which are sometimes experienced by the public.

Amherst proposes that when an analog FM radio station intends to upgrade to IBOC hybrid bandwidth, "real world" field tests should be performed with a full power test IBOC signal that emanates from the intended transmitting facilities first, before Commission authorizes the IBOC upgrade. If adopted, Amherst would request Commission guidance,

to implement detailed regulatory guidelines, possibly of the below example compromise.

The IBOC applicant should notify adjacent FM analog licensees of its intent to construct the

IBOC system if qualifying adjacent field strength of the 2nd, 3rd, or 4th adjacent channels

are individually greater than 40dBu which reside within 20% or more of the intended result of

the IBOC station 60dBu analog contour.

The test qualifying adjacent channel station principals should be allowed to determine if test

IBOC emissions adversely effect aesthetic quality of reception within their 60dBu

contour(s) or not. A specifically defined negative effect threshold point system of adjacent

channel analog signal quality could possibly lend a qualifying point grade accumulation to an

IBOC applicant which forwards the results to the Commission.

A qualifying test score would gain a grant from the Commission for IBOC system

operation. A disqualifying test score would require the IBOC applicant to change its facilities

or perhaps upgrade, if possible, the adjacent station facilities to acquire a passing score.

This option could include the cost burden of replacing degraded facilities by the IBOC

applicant. If changes to any of the degraded stations do not result in an accumulated

passing score, the IBOC application should then be denied.

Conclusion

Amherst welcomes IBOC digital radio into the 50+ year old analog FM band. We will be

looking forward at working hard to assure the coexistence of analog and digital specifications

on an ongoing basis so that the public may have a transparent choice when receiving both

transmitting technologies.

Signatories Of This Comment

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Respectfully Submitted,

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